

Title (en)
Vehicle tire load estimation

Title (de)
Fahrzeugradlastschätzung

Title (fr)
Estimation de la charge d'un pneu d'un véhicule

Publication
EP 2722202 A1 20140423 (EN)

Application
EP 13188530 A 20131014

Priority
US 201213655787 A 20121019

Abstract (en)
A load estimation system and method for estimating a vehicle load is disclosed. The system comprises at least one tire (12) supporting a vehicle (72); a tire rotation counter for generating a rotation count (22) from rotation of the tire (12); a distance measuring means for measuring a distance travelled (38) by the vehicle (72); an effective radius calculating means for calculating effective radius (r_{eff}) of the tire (12) from the distance travelled (38) and the rotation count (22); and load estimation means for calculating the load (34) carried by the tire (12) from the effective radius (r_{eff}).

IPC 8 full level
B60C 23/04 (2006.01); **G01G 19/08** (2006.01)

CPC (source: CN EP US)
B60C 23/0488 (2013.01 - CN EP US); **B60W 40/13** (2013.01 - CN); **G01G 19/086** (2013.01 - EP US)

Citation (search report)

- [XA] JP 2004237947 A 20040826 - HONDA MOTOR CO LTD
- [XAI] JP 2004067009 A 20040304 - TOYOTA MOTOR CORP, et al
- [X] JP 2007163158 A 20070628 - SUMITOMO RUBBER IND
- [XA] DE 102010004149 A1 20110714 - CONTINENTAL AUTOMOTIVE GMBH [DE]

Cited by
US11745548B2; EP2927074A1; EP3605023A1; US10668778B2; US10391823B2; US9434409B2; US11536579B2; WO2015014636A1; US11875614B2

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
EP 2722202 A1 20140423; **EP 2722202 B1 20170419**; CN 103770788 A 20140507; CN 103770788 B 20170222; JP 2014084100 A 20140512; JP 6265411 B2 20180124; US 2014114558 A1 20140424; US 9358846 B2 20160607

DOCDB simple family (application)
EP 13188530 A 20131014; CN 201310489898 A 20131018; JP 2013213650 A 20131011; US 201213655787 A 20121019